**Template for a Faculty Member in Civil Engineering Department**

Insert a personal photo.

**Administrative Position: Faculty Member**

**Academic Ranking :** **Professor**

**Name : Ahmed Moustafa Farag El-Sheikh**

**Nationality :** **Egyptian**

**Date of Birth :** **21-07-1959**

**General Specialty :**  **Civil Engineering**

**Accurate Specialty : Engineering Mathematics**

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**Education:**

* **B. Sc.:** June1982, Civil Engineering Dept., Faculty of Engineering, Alexandria University.
* **Qualifying year for mathematicians:** June1984, Dept. of Engineering Mathematics and Physics; Faculty of Engineering, Alexandria University.
* **M. Sc.:** October1987, Dept. of Engineering Mathematics and Physics, Faculty of Engineering, Alexandria University.

***Topic: “Perspective on an Inclined Picture plane”***

* **Ph. D.:** June 1994, Dept. of Engineering Mathematics and Physics, Faculty of Engineering, Alexandria University.

***Topic: “Mathematical Analysis of Free and Forced Vibration of Rectangular plates"***

*Ph. D study was done as a member* ***of joint venture*** *between* ***Alexandria University, Alex. Egypt*** *and* ***Ohio University,*** *Cleveland,* ***USA****.*

* **Post Dr. Research :** 1999, ***Institute of Geometry***/ ***Faculty of Mathematics and Natural Science*** of ***Dresden University of Technology***/ ***Germany.***
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**Academic Career:**

***Academic Hierarchy***

***1- In the faculty of Engineering, Alexandria University***

22-12-1982 - 03-01-1983 ***Demonstrator***, *Dept. of Structural Engineering, Alex. Univ., Egypt*.

04-01-1983 - 24-11-1987 ***Demonstrator***, *Dept. of Eng. Mathematics and physics, Alex. Univ., Egypt*.

25-11-1987 - 25-07-1994 ***Assistant Lecturer***, *Dept. of Eng. Mathematics and physics, Alex. Univ., Egypt*.

26-07-1994 - 01-01-2001 ***Assistant Professor***, *Dept. of Eng. Mathematics and physics, Alex. Univ., Egypt*.

02-01-2001 - 17-11-2009 ***Associate Professor***, *Dept. of Eng. Mathematics and physics, Alex. Univ., Egypt*.

18-11-2009 - Now ***Professor***, *Dept. of Eng. Mathematics and physics, Alex. Univ., Egypt*.

***2- On leaving the faculty of Engineering, Alexandria University***

1. *June 1999- December 1999*, ***Assistant Lecturer visitor***: *Faculty of Mathematics and Natural Science of Dresden University of Technology/* ***Germany****.*
2. *September 2003- August 2005*, ***Associate Professor***: *Faculty of Engineering, Engineering Mathematics and physics Dept. Beirut Arab University, Beirut,* ***Lebanon****.*
3. *September 2005- August 2007*, ***Associate Professor***: *Faculty of Engineering Sciences and Technology, Civil Engineering Dept. Sebha University Berak,* ***Libya****.*
4. *November 2014- Now****, Professor****, Faculty of Engineering, Albaha University,* ***KSA.***

***Experience in the Academic positions:***

1- *September 2005- August 2007,* ***Coordinator of the Graduate Study affair*** in the Civil Engineering Department, Faculty of Engineering, Sebha University, Libya 2005-2007.

2- *October 2008- December 2011*, ***Coordinator of the Basic Science in the Specialized Scientific Programs SSP*** in the Faculty of Engineering, Alexandria University, Alexandria, Egypt.

3*- April 2012 – 2014*, ***Head of the Department of Engineering Mathematics and Physics***, Faculty of Engineering, Alexandria University, Alexandria, Egypt

4*- December 2011- 2014*, ***Executive Manager of the Specialized Scientific Programs SSP***, Faculty of Engineering, Alexandria University, Alexandria, Egypt

***Teaching Domain:***

***Undergraduate courses***

***a- Teaching the courses of Engineering Mathematics at:***

-The Faculty of Engineering, Alex Univ. (From 1982 to now).

-The Faculty of Fine Art, Alex Univ. (From 1995 to 2003).

-The Faculty of the Air Defense. (From 1995 to 2003).

-The Arab Academy for Science & Technology,

-Collage of Engineering and Technology. (From 1995 to 2003).

-The Faculty of Engineering, Beirut Arab Univ. (From 2003 to 2005).

- Faculty of Engineering Sciences and Technology,

- Faculty of Engineering Sebha university. (From 2005 to 2007)

-The Arab Academy for Science & Technology,

-Collage of Engineering and Technology. (From 2007 to 2012)

- Faculty of Engineering, Albaha University (From 2014 until Now)

***b- Teaching and Applying the Computer Programs:***

1- Design of different Civil Engineering projects represented and drawn by AutoCAD.

2- Solution the Mathematical problems by means of the Computer Aided Algebraic Design via Mathematica, Maple and Mat-Lab.

3- Design and structural analysis by means of, Maple, SAP90 and STAD3.

4- Supervision for a number of civil Engineering graduate projects

5- Design of many programs based on FORTRAN, MAPLE and MAT-LAB. for numerical solutions by Finite differences, Finite Strips, Finite Elements, Boundary Element Method

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**Key Qualifications:**

Ahmed M. Farag received his BS.c. Degree with Honor in 1982 in Civil Engineering and his MS.c and Ph.D degrees in Engineering Mathematics from faculty of Engineering, Alexandria University in 1987 and 1994, respectively. His Ph. D thesis was comprised of a study of free and forced vibration of rectangular plates. His research interests include computer graphics, geometric modeling, mathematics and vibration of structures. Through the long time of his work and research, he has achieved a professional experience in different aspects of the field of Civil Engineering and Engineering Mathematics. Now he is a full professor. Recently he has occupied the position of the head of Engineering Mathematics department in the Faculty of Engineering - Alexandria University (2012-2014). He also was the executive manager of the Specialized Scientific Programs SSP in the Faculty of Engineering - Alexandria University (2011-2014). He can be reached by: E-mail: [aelsheikh@bu.edu.sa](mailto:aelsheikh@bu.edu.sa) or [afarag59@yahoo.com](mailto:afarag59@yahoo.com) Tel: +966530776946 or +201099024083 or through postal Address: Department of Engineering Mathematics and Physics, Faculty of Engineering, Alexandria University, Alexandria, 21544 -Egypt.

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**List of Publications**

1- H. M. Metwally, F. Salman and **A. M. Farag.** Modal Analysis for Vibration of Plates by transition Matrix, *The Eight International Conference for Mech. Power Eng*., Alex. Univ., Egypt 1993.

2- H. M. Metwally, F. Salman and **A. M. Farag.** Flexural Vibration of Bridge Deck, *1st International conf. on Mech. Eng. Advanced Tec. for Indus. Prod*. MEATIP1, Assuit University, Egypt, 1994.

3- Said A. Shebl and **Ahmed M. Farag.** The normal from a Given Point to an Ellipsoid, *the 7theInternational Conference on Engineering Computer Graphics and Descriptive Geometry*, Cracow, Poland 1996.

4- Ahmed H. El Sherif **,** Burhamy M. Hashish and **Ahmed M. Farag.**Minimum Circle Intersecting Three Skew Lines, *the 7theInternational Conference on Engineering Computer Graphics and Descriptive Geometry*, Cracow, Poland 1996.

5- A. Ashour **Ahmed M. Farag**. A Combination between Laplace transform, strip Method and transition matrix for determination of dynamic response and damping effect of plates, *International Journal of Acoustics and Vibration, Vol. 5, No. 4,* pp. 191-195, 2000.

6- **Ahmed M. Farag** andAhmed S. Ashour. Free Vibration of Orthotropic Skew Plates, *Bulletin of Journal of Vibration and Acoustics*, *Transactions of ASME*, Vol. 122, pp 313-317, July 2000.

7- **Ahmed M. Farag.** Geometric Modeling of The Ellipsoidal Trajectories, *the 8theInternational Conference on Engineering Computer Graphics and Descriptive Geometry*, Texas, USA 1998.

8- Ahmed H. El Sherif, **Ahmed M. Farag** and Mohamed F. Shalaby. Synthesizing Spherical Bivariate Function Generator Mechanisms by Conformal Mapping, the 6the International Conference on Theoretical and Applied Mechanics, Cairo, Egypt, 1999.

9- **Ahmed M. Farag** and Said A. Shebl. Orientation of Point Antenna on the Triaxial Ellipsoidal Earth to a Communication Satellite*, Alexandria Engineering Journal,* Vol. 38,No. 6. D131-D142, November 1999.

10- **Ahmed M. Farag.** Geodetic Constructive Model Based on Stereographic Projection*, Bulletin of Alexandria Engineering Journal*, Vol. 39, No. 3, pp 475-485, May 2000.

11- **Ahmed M. Farag.** Elliptic Projection of The Topographic Surface of the Earth, *Bulletin of Alexandria Engineering Journal*, Vol. 39, No. 3, pp 465-474, May 2000**.**

12- **Ahmed M. Farag** andAhmed H. M El Sherif.Metric Characters of Spherical Perspective, *Proceedings of the 9th International Conference on Engineering Computer Graphics and Geometry*, pp 57-62, Johannesburg, South Africa 2000.

13- **Ahmed M. Farag** and Gunter Weiss**.** Reconstruction of the satellite Orbit via Orientation Angle, *Journal for Geometry and Graphics*, Volume 4, No. 1, pp79-88, 2000.

14- **Ahmed M. Farag** andRaafat E. S. Esmail. Exact Closed Form for Deflection Surface of Restrained Orthotropic Plate Via Computer Aided Algebraic Solution, *Proceedings of Al-Azhar Eng. 8th Int. Conference*, Cairo, December 2004.

15- Raafat E. S. Esmail and **Ahmed M. Farag.**Transition Matrix–Boundary Element Combination Method For Coupled Free Vibration Analysis of Flexible Floating Structure, *Proceedings of Al-Azhar Eng. 8th Int. Conference*, Cairo, December 2004.

16- **Ahmed M. Farag** and A M. Akasha Analytical Solution of Restrained Concrete Slab Method as Orthotropic Plate, *Proceedings of Alexandria 6th International Conference on Structural and Geotechnical Engineering, Alexandria, April 2007.*

17- **Ahmed M. Farag** Analytical Method for Vibration Analysis of Stepped Thickness Plates, *Proceedings of the 8th International Conference on Concrete Technology in Developing Countries Hammamat – Tunisia*, 8-9 November 2007.

18- **Ahmed M. Farag** Mathematical Modeling For Vibration of Multi-Span Bridges, *Proceedings of the 8th International Conference on Concrete Technology in Developing Countries Hammamat – Tunisia*, 8-9 November 2007.

19- **Ahmed M. Farag** View Generation Based on Dual Projective Transformations on a Single Plane of Projection, *Alexandria Engineering Journal, Vol.47, No.2*, March 2008, pp 219- 231

20- Said A. Shebl and **Ahmed M. Farag.** An Inverse Conformal Projection of the Spherical and Ellipsoidal Geodetic Elements, [*Survey Review*](http://www.ingentaconnect.com/content/maney/sre;jsessionid=15jrqf5mv9m94.alice)*, Volume 39, Number 304, April 2007 , pp. 116-123(8). England.*

21- **Ahmed M. Farag.** Power Series Solution for Vibration of Plates of Variable Thickness, *Alexandria Engineering Journal, Vol.47, No.4*, July 2008, pp 1-9.

22- **Ahmed M. Farag**.Closed Form Solution for Vibrating Surfaces of Partially Restrained and Clamped Double-Panel Plates, *European Journal of Scientific Research Vol.29 No.3 (2009)*, pp.320-333, *England.*

23- **Ahmed M. Farag**. Buckling and Flexural Vibration of plates Subjected to In-Plane Forces, *International Review of Mechanical Engineering, (I.R.E.M.E) Vol. 3,No 2, March 2009,* pp.239-246*, Italy*

24- **Ahmed M. Farag**, Ahmed H. El Sherif and Walied I. Hussein, 3D Mesh Grid Constructed from Point Cloud and Bézier Surface Based on the Geometry of Human Knee Joint, 3rd *International Conference on Computer and Automation Engineering*, ICCAE 2011, January 21-23, 2011, Chongqing, China.

25- **Ahmed M. Farag**, Ahmed H. El Sherif and Walied I. Hussein, Construction of Point Cloud by Slice-Adaptive Threshold of Computer Tomography (CT) Images at the Human Knee Joint, *2nd International Conference on System Modeling and Optimization* (ICSMO 2011), January 26-28, 2011, Guiyang, China.

26- Mohamed A. El-Sayad and **Ahmed M. Farag**. Numerical Solution of Vibrating Double and Triple-Panel Stepped Thickness Plates. *Applied & Computational Mathematics*, *Vol. 1. Issue 3, 2012.*

27- **Ahmed M. Farag**, Wael F Mohamed, Atef A. Ata and Burhamy M. Burhamy, Computational Initial Value Method for Vibration Analysis of Symmetrically laminated Composite Plate, *International Conference on Computer, Computational and Mathematical Sciences, WASET, Zurich, Switzerland, January 14-15, 2013.*

28- **Ahmed M. Farag**, Wael F Mohamed, Atef A. Ata and Burhamy M. Burhamy, Numerical Method Based on Initial Value- Finite Differences for Free Vibration of Stepped Thickness Plates, *International Conference on Engineering, Physical, Natural and Applied Sciences, WASET, Zurich, Switzerland, January 14-15, 2013.*

29- Mohamed A. El-Sayad and **Ahmed M. Farag***,* Semi-Analytical Solution Based on Strip Method for Buckling and Vibration of Isotropic Plate, *Journal of Applied Mathematics*, Volume 2013, Article ID 796274, pp 1-10.

30- **Ahmed M. Farag El Sheikh**, Yahia Helmy, Yasmine Abouelseoud and Ahmed Elsherif, Optimal Power flow and Reactive Compensation Using a Particle Swarm Optimization Algorithm, *Journal of Electrical Systems* 10-1 (2014): 63-77.

31- **Ahmed M. Farag** **El Sheikh**, Yahia Helmy, Yasmine Abouelseoud and Ahmed Elsherif, Optimal capacitor placement and sizing in radial electric power systems*, Alexandria University, Alexandria Engineering Journal, Elsevier, (2014) 53, 809–816.*

32- **Ahmed M. Farag El Sheikh**, Analytical Solution of Higher Order Partial Differential Equations, *International Journal of Mathematics and Physical Science Research*, Vol. (8), Issue 1, pp.: (93-100) , April –September (2020).

33- **Ahmed M. Farag El Sheikh**, Exact Series Solution for Vibration Restrained Composite Plate, *International Journal of Scientific Research & Engineering Trends*, Vol. (6), Issue 4, pp.: (2678-2684) , July- Aug. (2020).

34- **Ahmed M. Farag El Sheikh**, Analytic Formulation on Vibration of Orthotropic Plate Under In-Plan Forces, *International Journal of Engineering, Science and Mathematics*, Vol. 9 Issue 10, October 2020.

35- **Ahmed M. Farag El Sheikh**, Critical Buckling of Orthotropic Clamped Plate Resting on Elastic Foundation, *International Journal of Engineering, Science and Mathematics*, in press, October 2022.